



**REPORT
of
SUB-SURFACE
DIRECTIONAL
SURVEY**

MARATHON OIL COMPANY
COMPANY

STATE SECTION 7 WELL NO. 1
WELL NAME

LEA COUNTY, NEW MEXICO
LOCATION

JOB NUMBER

430-1070

TYPE OF SURVEY

Gyroscopic Multishot

DATE

09/06/89

RECEIVED

SURVEY BY
Steve Covington

OFFICE NOV 28 1989
430 OCD
HOBBS OFFICE

EASTMAN CHRISTENSEN

RECORD OF SURVEY

FOR

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* * * * *
* OPERATOR : MARATHON OIL COMPANY
*
* WELL NAME : STATE SECTION 7 COM. 1
*
* LOCATION : LEA COUNTY, NEW MEXICO
*
* JOB NUMBER :
*
* RIG :
*
* DECLINATION : 9.00 E
*
*
* PLANE OF VERTICAL SECTION
*
* DIRECTION : S 78 51 W
*
* * * * *
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EC DISTRICT : WEST TEXAS BASE

MARATHON OIL COMPANY
STATE SECTION 7 COM. 1
LEA COUNTY, NEW MEXICO

DATE PRINTED : 10-OCT-89
OUR REF. NO. : 501371.7MA
JOB NUMBER :
PAGE NO. 2

MEASURED DEPTH	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR COORDINATES	CLOSURE DISTANCE	DOGLEG SEVERITY
0.00	0	0 N 0	0 E 0.00	0.00	0.00	0.00 N 0.00 E	0.00 S 90 0 E	0.00
100.00	0	45 S 64	0 W 100.00	100.00	0.63	0.29 S 0.59 W	0.66 S 64 0 W	0.75
200.00	0	45 S 73	0 W 100.00	199.99	1.92	0.77 S 1.81 W	1.96 S 67 0 W	0.12
300.00	0	45 S 84	0 W 100.00	299.98	3.23	1.03 S 3.09 W	3.25 S 71 36 W	0.14
400.00	0	45 S 89	0 W 100.00	399.97	4.52	1.11 S 4.39 W	4.53 S 75 51 W	0.07
500.00	0	2 N 65	0 W 100.00	499.97	5.14	0.97 S 5.05 W	5.14 S 79 10 W	0.72
600.00	0	2 N 55	0 W 100.00	599.97	5.18	0.94 S 5.10 W	5.18 S 79 33 W	0.01
700.00	0	45 N 83	0 W 100.00	699.97	5.75	0.70 S 5.73 W	5.77 S 83 2 W	0.72
800.00	0	30 S 69	0 W 100.00	799.96	6.83	0.83 S 6.80 W	6.85 S 83 2 W	0.39
900.00	0	15 N 74	0 W 100.00	899.96	7.47	0.86 S 7.44 W	7.49 S 83 25 W	0.34
1000.00	0	30 N 56	0 W 100.00	999.96	8.00	0.58 S 8.04 W	8.06 S 85 51 W	0.27
1100.00	0	45 N 67	0 W 100.00	1099.95	8.84	0.06 S 9.00 W	9.00 S 89 36 W	0.28
1200.00	0	15 N 62	0 W 100.00	1199.94	9.54	0.31 N 9.78 W	9.79 N 88 10 W	0.50
1300.00	0	45 N 48	0 W 100.00	1299.94	10.14	0.81 N 10.50 W	10.53 N 85 34 W	0.51
1400.00	0	30 N 84	0 W 100.00	1399.93	11.02	1.25 N 11.48 W	11.55 N 83 47 W	0.45
1500.00	0	30 N 73	0 W 100.00	1499.93	11.83	1.43 N 12.33 W	12.42 N 83 25 W	0.10
1600.00	0	45 N 56	0 W 100.00	1599.93	12.70	1.89 N 13.32 W	13.45 N 81 54 W	0.31
1700.00	0	30 N 57	0 W 100.00	1699.92	13.48	2.50 N 14.23 W	14.45 N 80 3 W	0.25
1800.00	0	45 S 85	0 W 100.00	1799.91	14.45	2.76 N 15.27 W	15.52 N 79 46 W	0.47
1900.00	0	45 S 85	0 W 100.00	1899.90	15.75	2.64 N 16.57 W	16.78 N 80 56 W	0.00
2000.00	1	0 S 79	0 W 100.00	1999.89	17.27	2.43 N 18.08 W	18.25 N 82 21 W	0.27
2100.00	0	45 N 81	0 W 100.00	2099.88	18.77	2.40 N 19.60 W	19.75 N 83 1 W	0.39
2200.00	1	0 N 83	0 W 100.00	2199.87	20.21	2.62 N 21.11 W	21.27 N 82 56 W	0.25
2300.00	1	0 S 77	0 W 100.00	2299.85	21.93	2.53 N 22.85 W	22.99 N 83 42 W	0.35
2400.00	0	30 N 81	0 W 100.00	2399.85	23.21	2.48 N 24.15 W	24.27 N 84 8 W	0.57
2500.00	0	15 S 62	0 W 100.00	2499.84	23.86	2.37 N 24.78 W	24.90 N 84 32 W	0.34
2600.00	0	0 N 0	0 E 100.00	2599.84	24.06	2.27 N 24.97 W	25.08 N 84 48 W	0.25
2700.00	0	30 S 9	0 W 100.00	2699.84	24.21	1.84 N 25.04 W	25.11 N 85 48 W	0.50
2800.00	0	15 N 19	0 E 100.00	2799.84	23.82	1.73 N 24.62 W	24.68 N 85 58 W	0.75
2900.00	0	15 N 4	0 W 100.00	2899.84	23.68	2.16 N 24.56 W	24.65 N 84 58 W	0.10

CONTINUED ON NEXT PAGE ...



MARATHON OIL COMPANY
STATE SECTION 7 COM. 1
LEA COUNTY, NEW MEXICO

DATE PRINTED : 10-OCT-89
OUR REF. NO. : 501371.7MA
JOB NUMBER :
PAGE NO. 3

MEASURED DEPTH	DRIFT D	DRIFT ANGLE M	DRIFT DIRECTION D	COURSE LENGTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR COORDINATES	CLOSURE DISTANCE	S U R E DIRECTION D	DOGLEGS SEVERITY
3000.00	0	30	N 57	0 E 100.00	2999.84	23.30	2.72 N	24.28 W	24.43 N 83 36 W	0.44
3100.00	0	15	N 12	0 E 100.00	3099.83	22.84	3.25 N	23.92 W	24.14 N 82 16 W	0.37
3200.00	0	30	N 87	0 E 100.00	3199.83	22.31	3.65 N	23.45 W	23.74 N 81 10 W	0.50
3300.00	0	15	N 1	0 E 100.00	3299.83	21.82	4.07 N	23.04 W	23.40 N 79 58 W	0.54
3400.00	0	0	N 0	0 E 100.00	3399.83	21.77	4.29 N	23.04 W	23.43 N 79 27 W	0.25
3500.00	0	15	N 37	0 W 100.00	3499.83	21.87	4.46 N	23.17 W	23.59 N 79 5 W	0.25
3600.00	0	30	N 71	0 W 100.00	3599.83	22.31	4.84 N	23.69 W	24.18 N 78 27 W	0.32
3700.00	0	45	N 88	0 W 100.00	3699.82	23.32	5.04 N	24.76 W	25.27 N 78 29 W	0.31
3800.00	0	30	N 82	0 W 100.00	3799.81	24.37	5.14 N	25.85 W	26.35 N 78 45 W	0.26
3900.00	0	45	S 80	0 W 100.00	3899.81	25.44	5.12 N	26.94 W	27.42 N 79 14 W	0.31
4000.00	0	45	S 75	0 W 100.00	3999.80	26.75	4.84 N	28.21 W	28.63 N 80 16 W	0.07
4100.00	0	45	S 87	0 W 100.00	4099.79	28.05	4.63 N	29.50 W	29.87 N 81 5 W	0.16
4200.00	0	45	S 58	0 W 100.00	4199.78	29.34	4.24 N	30.74 W	31.03 N 82 9 W	0.38
4300.00	0	45	S 62	0 W 100.00	4299.77	30.58	3.59 N	31.87 W	32.07 N 83 35 W	0.05
4400.00	0	45	N 88	0 W 100.00	4399.77	31.87	3.30 N	33.13 W	33.30 N 84 19 W	0.39
4500.00	0	45	S 89	0 W 100.00	4499.76	33.15	3.31 N	34.44 W	34.60 N 84 31 W	0.04
4600.00	0	30	N 71	0 W 100.00	4599.75	34.17	3.48 N	35.52 W	35.69 N 84 24 W	0.33
4700.00	0	45	S 76	0 W 100.00	4699.74	35.22	3.53 N	36.59 W	36.76 N 84 30 W	0.43
4800.00	0	15	N 23	0 W 100.00	4799.74	35.86	3.88 N	37.31 W	37.51 N 84 3 W	0.75
4900.00	0	30	S 51	0 W 100.00	4899.74	36.37	4.02 N	37.86 W	38.07 N 83 56 W	0.62
5000.00	0	15	S 79	0 W 100.00	4999.74	37.00	3.75 N	38.45 W	38.63 N 84 26 W	0.30
5100.00	0	15	N 88	0 W 100.00	5099.73	37.43	3.71 N	38.88 W	39.06 N 84 33 W	0.06
5200.00	0	15	N 81	0 W 100.00	5199.73	37.85	3.75 N	39.32 W	39.50 N 84 33 W	0.03
5300.00	0	30	S 14	0 W 100.00	5299.73	38.40	3.42 N	39.82 W	39.96 N 85 5 W	0.54
5400.00	0	15	S 59	0 W 100.00	5399.73	38.87	2.91 N	40.20 W	40.30 N 85 51 W	0.37
5500.00	0	30	S 29	0 W 100.00	5499.73	39.41	2.44 N	40.65 W	40.72 N 86 34 W	0.31
5600.00	0	45	S 51	0 W 100.00	5599.72	40.25	1.61 N	41.34 W	41.38 N 87 46 W	0.34
5700.00	0	30	S 74	0 W 100.00	5699.71	41.29	1.11 N	42.31 W	42.32 N 88 30 W	0.35
5800.00	0	45	S 84	0 W 100.00	5799.71	42.39	0.90 N	43.38 W	43.39 N 88 48 W	0.27
5900.00	0	45	S 46	0 W 100.00	5899.70	43.63	0.36 N	44.54 W	44.55 N 89 32 W	0.49

CONTINUED ON NEXT PAGE ...



MARATHON OIL COMPANY
STATE SECTION 7 COM. 1
LEA COUNTY, NEW MEXICO

DATE PRINTED : 10-OCT-89
OUR REF. NO. : S01371.7MA
JOB NUMBER :
PAGE NO. 4

MEASURED DEPTH	DRIFT ANGLE D M	DRIFT DIRECTION D M	COURSE LENGTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	RECTANGULAR COORDINATES	CLOSURE DISTANCE	DOGLEG SEVERITY
6000.00	0 15 S 38	0 W 100.00	5999.70	44.33	0.29 S	45.13 W	45.13 S 89 38 W	0.50
6100.00	0 45 S 89	0 W 100.00	6099.69	45.15	0.67 S	45.89 W	45.89 S 89 10 W	0.62
6200.00	0 45 S 88	0 W 100.00	6199.68	46.44	0.70 S	47.19 W	47.20 S 89 9 W	0.01
6300.00	0 45 N 90	0 W 100.00	6299.67	47.73	0.72 S	48.50 W	48.51 S 89 9 W	0.03
6400.00	0 45 S 82	0 W 100.00	6399.67	49.02	0.81 S	49.81 W	49.81 S 89 4 W	0.10
6500.00	0 45 N 90	0 W 100.00	6499.66	50.32	0.91 S	51.11 W	51.12 S 88 59 W	0.10
6600.00	0 45 S 65	0 W 100.00	6599.65	51.62	1.19 S	52.38 W	52.39 S 88 42 W	0.32
6700.00	1 0 N 88	0 W 100.00	6699.64	53.13	1.49 S	53.86 W	53.88 S 88 25 W	0.48
6800.00	1 15 S 71	0 W 100.00	6799.62	55.08	1.78 S	55.79 W	55.82 S 88 11 W	0.48
6900.00	1 0 N 88	0 W 100.00	6899.60	57.03	2.07 S	57.72 W	57.76 S 87 57 W	0.48
7000.00	1 0 S 87	0 W 100.00	6999.58	58.75	2.08 S	59.47 W	59.51 S 88 0 W	0.09
7100.00	0 45 S 85	0 W 100.00	7099.57	60.26	2.19 S	60.99 W	61.03 S 87 57 W	0.25
7200.00	1 0 N 86	0 W 100.00	7199.56	61.76	2.20 S	62.52 W	62.55 S 87 59 W	0.28
7300.00	1 15 S 62	0 W 100.00	7299.54	63.70	2.60 S	64.41 W	64.47 S 87 41 W	0.67
7400.00	1 15 S 79	0 W 100.00	7399.52	65.85	3.33 S	66.46 W	66.54 S 87 8 W	0.37
7500.00	1 45 S 76	0 W 100.00	7499.48	68.47	3.90 S	69.02 W	69.13 S 86 46 W	0.51
7600.00	1 15 S 70	0 W 100.00	7599.45	71.07	4.66 S	71.52 W	71.67 S 86 16 W	0.52
7700.00	1 15 S 78	0 W 100.00	7699.42	73.24	5.26 S	73.61 W	73.80 S 85 55 W	0.17
7800.00	1 15 S 83	0 W 100.00	7799.40	75.42	5.62 S	75.76 W	75.97 S 85 45 W	0.11
7900.00	1 15 S 83	0 W 100.00	7899.37	77.60	5.89 S	77.93 W	78.15 S 85 41 W	0.00
8000.00	1 15 S 70	0 W 100.00	7999.35	79.77	6.40 S	80.05 W	80.30 S 85 26 W	0.28
8100.00	1 0 N 89	0 W 100.00	8099.33	81.72	6.72 S	81.97 W	82.25 S 85 19 W	0.48
8200.00	1 0 S 81	0 W 100.00	8199.32	83.45	6.84 S	83.71 W	83.99 S 85 20 W	0.17
8300.00	1 0 S 78	0 W 100.00	8299.30	85.20	7.16 S	85.43 W	85.73 S 85 13 W	0.05
8400.00	1 15 S 51	0 W 100.00	8399.28	87.08	8.00 S	87.18 W	87.55 S 84 46 W	0.58
8500.00	1 15 S 66	0 W 100.00	8499.26	89.12	9.13 S	89.04 W	89.51 S 84 9 W	0.33
8600.00	1 15 S 64	0 W 100.00	8599.23	91.24	10.05 S	91.02 W	91.57 S 83 42 W	0.04
8700.00	1 0 S 62	0 W 100.00	8699.21	93.13	10.95 S	92.77 W	93.41 S 83 16 W	0.25
8800.00	1 30 S 60	0 W 100.00	8799.19	95.21	12.00 S	94.67 W	95.43 S 82 46 W	0.50
8900.00	1 15 S 64	0 W 100.00	8899.16	97.50	13.13 S	96.79 W	97.68 S 82 17 W	0.27



MARATHON OIL COMPANY
STATE SECTION 7 COM. 1
LEA COUNTY, NEW MEXICO

DATE PRINTED : 10-OCT-89
OUR REF. NO. : 501371.7MA
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PAGE NO. 5

MEASURED DEPTH	D R I F T D M	ANGLE D M	D R I F T D M	COURSE LENGTH	TRUE VERTICAL DEPTH	VERTICAL SECTION	R E C T A N G U L A R C O O R D I N A T E S	C L O S U R E D I R E C T I O N D M	D O G L E G S E V E R I T Y
9000.00	1	15	S 49	0 W 100.00	8999.14	99.52	14.33 S	98.61 W	0.33
9100.00	1	30	S 53	0 W 100.00	9099.11	101.64	15.84 S	100.47 W	0.27
9200.00	1	30	S 52	0 W 100.00	9199.07	103.98	17.43 S	102.55 W	0.03
9300.00	1	30	S 58	0 W 100.00	9299.04	106.37	18.93 S	104.69 W	0.16
9400.00	1	15	S 58	0 W 100.00	9399.01	108.62	20.20 S	106.72 W	0.25
9500.00	1	30	S 52	0 W 100.00	9498.98	110.81	21.58 S	108.69 W	0.29

CLOSURE - DISTANCE : 110.81

REPORT UNITS : Feet
SURVEY CALCULATION METHOD : Radius of curvature

SURVEY RUN INFORMATION
=====





**EASTMAN
CHRISTENSEN**

2103 Market, Midland, Texas 79703, Phone: (915) 694-9517

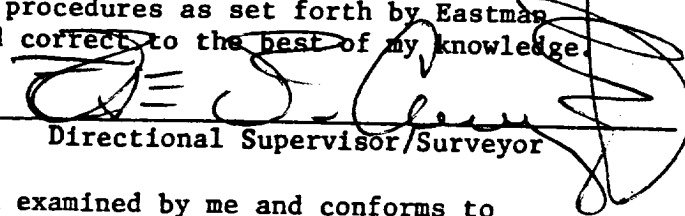
SURVEY CERTIFICATION SHEET

STATE OF TEXAS
COUNTY OF MIDLAND

I, STEVE COVINGTON, in the employ of Eastman Christensen, Inc. did on the days of SEPT 6, 1989 thru SEPT 6, 1989 conduct or supervise the taking of a GYROSCOPIC MULTI-SHOT survey by the method of magnetic orientation from a depth of 0 feet to 9500 feet, with recordings of inclination and direction being obtained at approximate intervals of 100 feet.

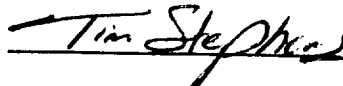
This survey was conducted at the request of MARATHON OIL COMPANY for their STATE SECTION 7 WELL NO. 1, LEA County, State of NEW MEXICO, in the _____ field.

This data for this survey and the calculation were obtained and performed by me according to standards and procedures as set forth by Eastman Christensen, Inc. and is true and correct to the best of my knowledge.



Directional Supervisor/Surveyor

The data for this survey has been examined by me and conforms to principles and procedures set forth by Eastman Christensen, Inc.



Tim Stephens

Before me, the undersigned authority, on this day personally appeared _____, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that this instrument is a true statement of facts therein recited.

Subscribed and sworn to before me on this _____ day of _____, 19____

Notary Public in and for the
County of Midland, Texas
My commission expires _____

**MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

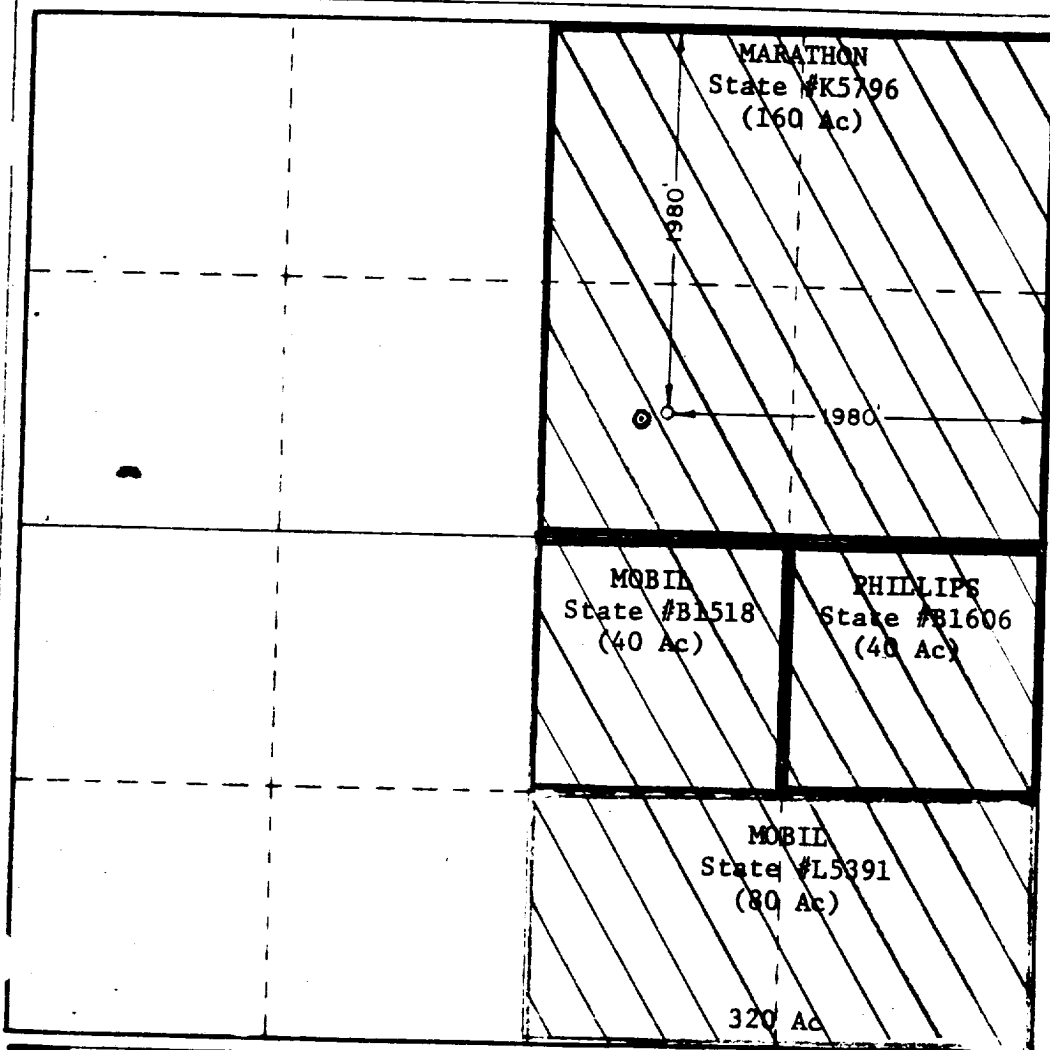
Operator Marathon Oil Company			Lease State Section 7 Com		Well No. 1
Unit Letter G	Section 7	Township 17 South	Range 35 East	Loc Lee	
Actual Surface Location of Well: 1980 feet from the North line and 1980 feet from the East line Ground Level Elev. 4007 Producing Formation Atoka Pool Undesignated Estimated Acreage 320					

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☒ Yes ☐ No If answer is "yes," type of consolidation Communitization

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Robert J. Duenckel
Name

Robert J. Duenckel

Position

Petroleum Engineer

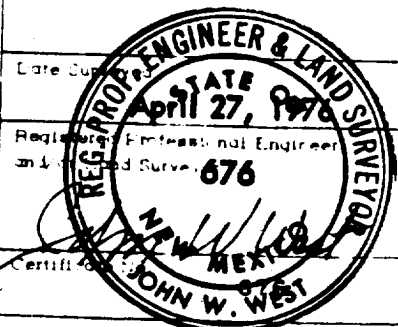
Company

Marathon Oil Company

Date

May 3, 1976

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.



Dist: RPS, JCH, File

NOTES

MARATHON OIL COMPANY
STATE SECTION 7 BOX 1
LA SALLE, ILL. 62435

SCALE 1"=20FT.
NOTE: COORDINATES RELATIVE
TO SLOT

